

Video Card Replacement Instructions

Be sure to follow the instructions in this sheet carefully. Failure to follow these instructions could result in damage to your equipment and may void your warranty.

Note: Written and video instructions covering customer-installable parts are available at <http://www.info.apple.com/installparts/>.

Tools Required

- Phillips screwdriver
- Pliers

Opening the Computer

Warning: Always turn off your computer before opening it to avoid damaging its internal components.

1. Place your computer on a clean, flat surface.
2. If you think your computer is in sleep, press the power button on the front of the computer to wake it.
3. Shut down your computer by opening the Special menu and choosing Shut Down. Then wait five minutes for the computer's internal components to cool down.
4. If you attached a security cable through the computer's lockable cover latch, remove the cable.
5. Unplug all other cables from the computer except the power cord.
6. Touch the metal PCI access covers on the back of the computer. **(Figure 1A)**

Important: To avoid electrostatic discharge, always ground yourself by touching the port access covers before you touch any parts or install any components inside the computer. To avoid static electricity building back up in your body, do not walk around the room until you have completed your installation and closed the computer.

7. Unplug the power cord.

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8. Lift the latch on the right side access panel. **(Figure 1B)**
 9. Gently lower the access panel until it lies flat. To avoid scratching the case, lower the panel onto a soft, clean cloth. **(Figure 2)**

Warning: If you see any lights glowing on the main logic board, the computer has not been shut down. Close the side access panel and shut down the computer before proceeding.

Removing the Installed Card

Important: Video cards are either accelerated graphics port (AGP) cards or peripheral component interconnect (PCI) cards. These cards fit into expansion slots located on the logic board.

The steps for replacing both types of cards are similar. However, AGP cards must be installed in slot 1 **(Figure 3A)**, the shorter expansion slot, while PCI cards must be installed in the longer PCI expansion slots **(Figure 3B)**.

1. Using a Phillips screwdriver, remove the card's mounting screw. **(Figure 3C)**
2. If you are removing a PCI video card, gently pull up the card and remove it from its PCI expansion slot.
3. If you are removing an AGP video card, pull back the tab on the video card retaining clip to release the card. Then gently pull the card up, and remove it from the AGP expansion slot. **(Figure 4)**

Warning: To avoid damaging the logic board or the AGP slot, do not rock the card when removing it. Lift it straight up out of the connector.

Installing the Replacement Card

1. Remove the replacement video card from its static-proof bag and hold it by its corners, taking care not to touch the gold connector or any of the components on the card.
2. If the replacement card does not have a fence already installed, attach the fence enclosed in the box. Using a Phillips screwdriver, install the two small Phillips screws **(Figure 5A)** on either side of the ADC connector and the two large Phillips screws **(Figure 5B)** on the fence side tabs. Using pliers, install the two jack-nut screws **(Figure 5C)** on either side of the VGA connector.
3. Align the card's connector with its expansion slot and press down until the connector is inserted all the way into the slot.
 - Don't rock the card; instead press it straight into the slot.
 - Don't force the card. If you meet a lot of resistance, pull the card out. Check the connector and the slot for damage or obstructions, and then try inserting the card again.

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- Pull the card gently to see if it is properly connected. If it resists and stays in place, and if its gold connectors are barely visible, the card is connected.
4. Replace the card's mounting screw and tighten it to secure the card.

Closing the Computer

1. Raise the side access panel, lift the latch, and press the panel against the case until it snaps securely into place.
2. Reconnect all cables and restart your computer.

Warning: Never turn on your computer unless all of its internal and external parts are in place and it is closed. Operating the computer when it is open or missing parts can damage your computer or cause injury.

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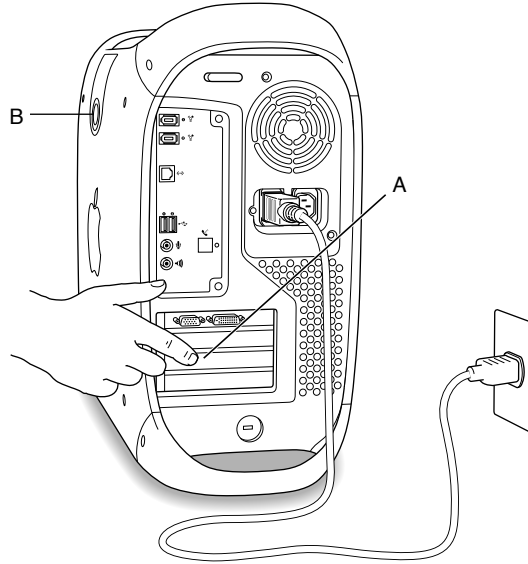
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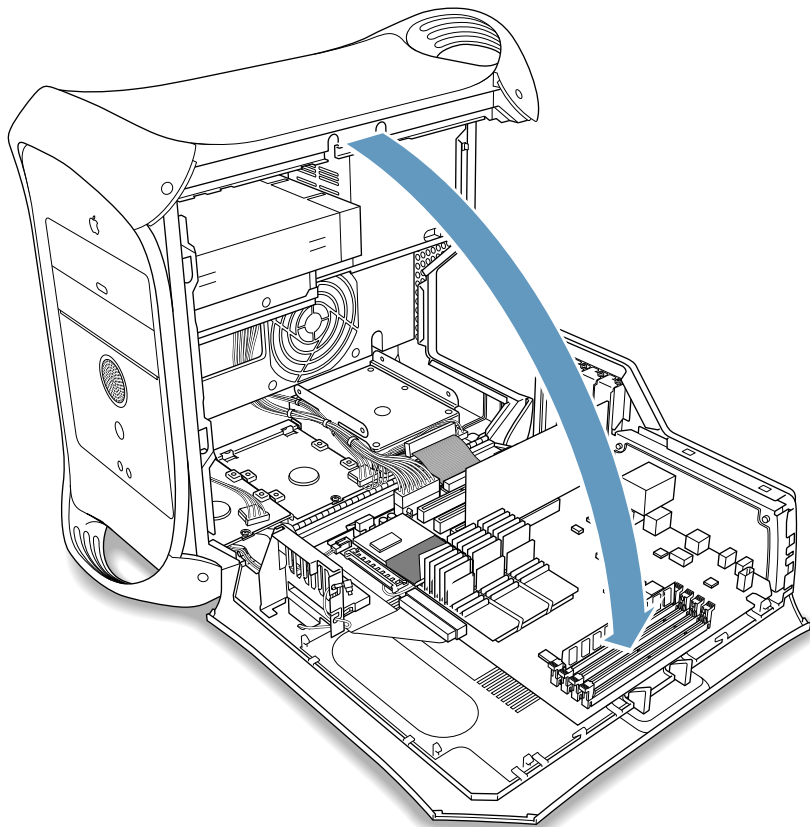
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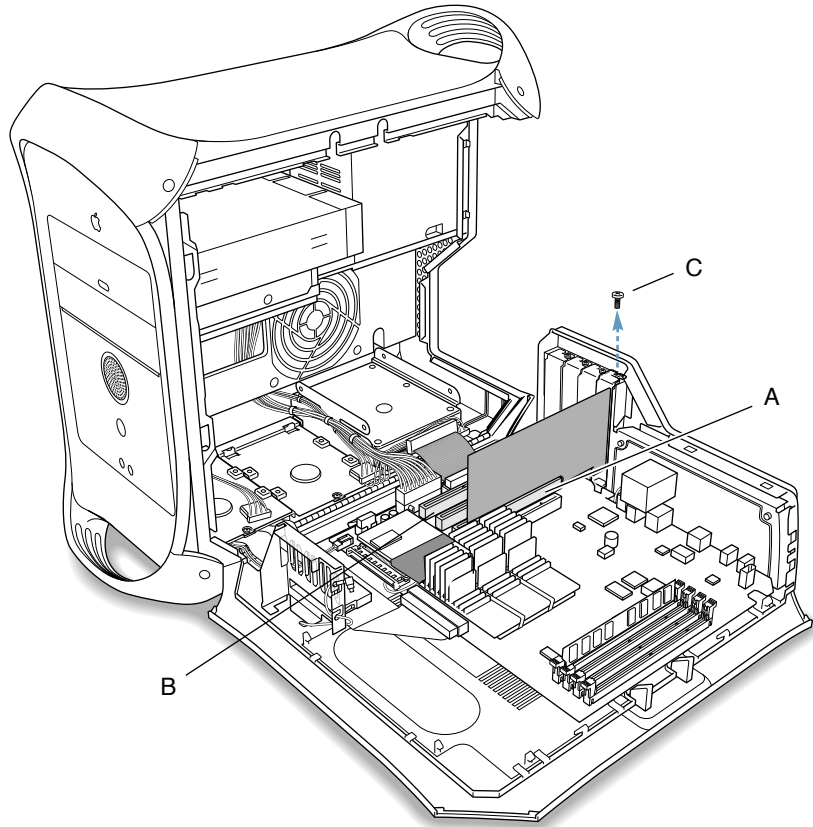
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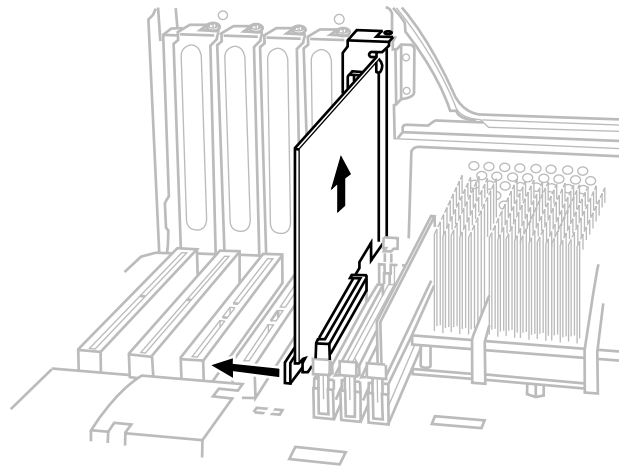
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